

## Do Newspaper Reports of Coroners' Inquests Incite People to Commit Suicide?

By B. BARRACLOUGH, D. SHEPHERD and C. JENNINGS

A statistical association has been found between reports of suicide inquests in a local paper and the subsequent suicide of men under 45 years.

### Introduction

'Some plan for discontinuing by common consent the detailed dramatic tales of suicide, murder and bloodshed in the newspapers is well worth the attention of their editors. No fact is better established in science than that suicide (and murder may perhaps be added) is often committed from imitation. A single paragraph may suggest suicide to 20 persons; some particular chance, but apt, expression seizes the imagination and the disposition to repeat the act in a moment of morbid excitement proves irresistible. Do the advantages of publicity counter-balance the evils attendant on one such death? Why should cases of suicide be recorded at length in public papers any more than cases of fever?' (William Farr, 1841).

The influence of newspaper reports of suicide on the suicide rate is unknown and has therefore long been a matter for debate. Others besides Farr have asserted that newspapers should stop the reporting of suicide or at least moderate the tone of what is published. The American Academy of Medicine in 1911 and the British Medical Association in 1948 have both proposed a ban on the press reporting of suicide inquests to prevent imitative suicide (Motto, 1967), and the *Lancet* in 1969 recommended less sensationalism. Durkheim, adopting a different point of view, wrote that suicide 'exposes a state which is the true generating cause of the act and which probably would have produced its effect even had imitation not intervened'. Imitation in his view could not explain the suicide rate, nor consequently would suppressing newspaper accounts prevent suicide (1897, 1952). Such claims, and there are many more, rest on assertion; evidence is required to resolve the differing opinions.

### Method

#### Sample of suicides

The sample comprised those residents of Portsmouth who died between 1.1.70 and 31.12.72, a three-year period, and whose

Newspaper strikes provide periods of freedom from the conjectured influences of the press reporting of suicide. A natural experiment is then provided of which advantage can be taken. In eight cities in the United States of America that experienced newspaper strikes and were studied for suicide rate changes, only one of ten strikes was associated with a significant reduction in the suicide rate. For 268 days in 1968 Detroit was without newspapers. The suicide rate of women under 35 showed a significant reduction when compared with the average of the same 268 day periods in the previous five years. On the whole, therefore, this does not provide very strong evidence that newspaper strikes prevent suicide or that newspaper reports incite people to kill themselves (Motto, 1967, 1970; Blumenthal and Bergner, 1973). But in America (unlike Britain) the effects of local radio and local television reporting of suicide may mask any effect from withdrawal of newspapers.

We decided to use a different approach from that of Motto. If suicide is contagious, newspapers being the vector and the incubation period short, then reports of suicides should be followed by further suicides within the next few days. To test this hypothesis, we examined the temporal association between newspaper reports of suicide inquests and the occurrence of suicide in Portsmouth, a city of 200,000 population.

deaths were classified as suicide (E950-959) or undetermined deaths (E980-989). Suicides who died in Portsmouth but had not been resident in the city were excluded, since they were unlikely to have read the local newspaper. One 56-year-old female suicide was excluded because her exact date of death was not known. Undetermined deaths were included because evidence suggests them to be cases of suicide in which evidence of intent is not strong enough for the legal definition of suicide to be satisfied (Holding and Barracough, 1975; Jacobson *et al.*, 1976). The names of the suicides, their sex, age, occupation, address and method of death were obtained from death certificates. Death certificates were produced by the Office of Population Censuses and Surveys' death register as a result of a search there for Portsmouth residents who died from causes classified as suicide or undetermined deaths. Inquest notes of the Portsmouth coroner's suicide and open verdict cases provided two further deaths, classified accident by OPCS, but which the investigators who had access to more facts considered ought to have been classified undetermined.

There were in all 76 deaths (54 suicides, 22 undetermined), which will be referred to collectively as 'the suicides'.

#### Sample of reports

Newspaper reports about suicide inquests were identified in Portsmouth's *The News*. *The News* is a daily newspaper for the Portsmouth area providing a coverage of world, local and sporting events, with the emphasis more on local affairs and sport. Since there are no other local newspaper competitors it is virtually the only source of information about suicides—especially the suicides of local people—apart from gossip. National television and national daily newspapers only refer to suicides of nationally well-known persons, or to unusual deaths; these are rare and are reported locally in any case. Local radio does not cover coroners' court work. *The News* reports 80 per cent of inquests on Portsmouth suicides and undetermined deaths. The newspaper's approach to reporting suicide is to be the subject of a further paper, but broadly speaking it sticks to the facts, avoiding sensationalism in the main while

giving more space and stronger headlines to the unusual case.

Four editions of *The News* are produced Monday to Friday, and three on Saturday. There is no Sunday issue. Of each daily production 48 per cent is accounted for by the fourth or final edition, which has the largest readership. The third edition goes only to the Isle of Wight and does not circulate in Portsmouth. The management states that an audited average of 76 per cent of households in Portsmouth Borough saw *The News* during 1972, which is a high coverage. From circulation and readership figures for 1974 supplied by the Evening Newspaper Advertising Bureau Ltd (ENAB, 1976) we estimated the percentages of young and elderly men and women in Portsmouth who read *The News*. They are: 54 per cent of women under 45, and 74 per cent over 45; 65 per cent of men under 45, and 88 per cent over 45.

The 925 final editions of *The News* issued between 25.12.69 and 31.12.72 were scrutinized for reports of suicide inquests, and 128 reports were identified.

#### Method of analysis

If newspaper reports incite people to kill themselves, such reports ought to occur more frequently than expected in the few days before a suicide. This was the basis of our method of analysis, which was adapted from one proposed by Cox and Lewis (1966). We found the number of days in the three-year period which had been preceded by one or more reports within two, four and seven days. This score (together with the number of days which had not been preceded by a report) gave an 'expected' distribution. We then did the same for the days on which a suicide occurred and so derived an 'observed' distribution. The chi-square goodness of fit test (or the binomial test, if the expected frequency was less than five) was used to compare the distributions. Significant differences would indicate a statistical association between suicide and preceding report.

A seven-day period was chosen so that the period preceding each day included a Sunday, when the paper was not published. But we thought it worthwhile to look at shorter periods as well. Since a period of one day would pro-

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duce spurious zero counts preceding each Monday, a two-day period was used instead; while a four-day period was adopted as a middle term.

### Results

Four age-sex groups were each independently tested, and a statistically significant association was observed for the suicides of men under 45 (Table).

TABLE  
*Observed and expected frequencies of suicide inquest reports appearing in The News, 2, 4 and 7 days before the suicides*

Female suicides aged 44 and under (N = 6)				
No. of days before	Observed	Expected	$\chi^2$	P
2	2	1.2	Binomial	0.3
4	3	2.2	"	0.4
7	4	3.3	"	0.4
Female suicides aged 45 and more (N = 25)				
No. of days before	Observed	Expected	$\chi^2$	P
2	4	5	0.25	<0.7
4	5	9	2.78	<0.1
7	10	13.8	2.27	<0.2
Male suicides aged 44 and under (N = 20)				
No. of days before	Observed	Expected	$\chi^2$	P
2	8	4	Binomial	0.03
4	13	7.2	7.30	<0.01
7	16	11	5.03	<0.05
Male suicides aged 45 and more (N = 25)				
No. of days before	Observed	Expected	$\chi^2$	P
2	2	5	2.25	<0.2
4	7	9	0.69	<0.8
7	12	13.8	0.49	<0.5

No other age-sex group showed a significant association. And in the tests on men and women suicides over 45 the relationship was the reverse of that predicted, a greater proportion of suicide days were preceded by no reports than

was the case when all days were considered. A significant result there would have suggested that reports actually deter people from suicide.

To strengthen the evidence for a causal association between report and suicide, we looked for differences between the reports preceding the suicides of young men and all the reports. The reports were equivalent for the following variables: sex, age and method of death for the suicide reported on, and the size of the report, the page of the newspaper on which it appeared and the use of the words 'suicide', 'killed himself', or 'took own life' in the headline. We also looked at the degree of correspondence between each suicide in the male under-45 group and the report or reports which preceded it in the previous four days. Some correspondence would support the imitation hypothesis. Of 20 male suicides under 45, 10 were preceded in the previous four days by at least one report about a male, 4 by at least one report about someone under 45, and 2 by a report of someone using the same method. None of these findings significantly exceed what would be expected by chance.

### Discussion

A statistical association has been found between reports of suicide inquests and the suicide of men under 45, but not for other age or sex groups. Before drawing any conclusions from this observation it is necessary to discuss the influence on the finding of the method of inquiry, including the statistical analysis.

The identification of inquest reports in the newspaper files is subject only to clerical error. A check on a sample of newspapers by a second scrutineer showed the procedure to be reliable. Deaths identified from death certificates were back-checked against the newspapers for reports of their inquests which might have been overlooked. There may have been some error in the timing of death, resulting from the period which elapses between death and the discovery of the body, tending to late dating, but such error could not account for the finding.

Using periods of less than seven days results in some of those periods containing a Sunday and others not; but that is the same for both observed and expected calculations. A spurious

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association would be caused if newspaper reports clumped at one part of the week and suicides for an independent reason were grouped together three or four days later. In fact, reports are clumped because the coroner prefers certain weekdays for holding inquests and hears more than one inquiry at a time. Thus 87 per cent are published on Wednesdays to Saturdays, but the suicides of men under 45 are evenly spread over each weekday, so the association cannot be accounted for in this way.

A statistical association does not establish a causal relation; more direct evidence of a link is necessary, and this we did not find. Characteristics of the suicides did not correspond to those of the reports, and the reports preceding male suicides under 45 did not differ from all reports. Although these negative findings do not strengthen a causal hypothesis, they do not weaken it, since the effect of a report may be non-specific; any report might be a stimulus to a susceptible person.

An essential element in a causal link between report and suicide is the suicide having read the newspaper, which is something our study could not inquire into. To establish this fact would require interviews with surviving families or direct interviews with failed suicides. However, we do know that about two-thirds of Portsmouth males under 45 see *The News*, so the potential exposure to suicidal stimuli certainly exists for the group showing the association, although the exposure is less than that for other age-sex groups which did not exhibit the association.

We used reports appearing in the final edition of *The News* because more people read it than other editions, and library files of the other editions were incomplete. Reporting of suicides varies between each day's editions. Early editions may carry reports subsequently dropped from the final edition. The final edition has reports not appearing in the earlier editions, and these may be carried over to the next day, although not always. We have made no attempt to measure the effect of this variation, which, however, by not being taken into account probably lessens the chance of an association being found, since it increases the error of measuring the stimulus. Our finding relates, therefore, to the final edition of *The News* only.

*The News* publishes material about other aspects of suicide beside inquest reporting. Bodies found in suspicious circumstances, preliminary inquest hearings, accounts of bizarre deaths abroad and general articles on suicide are all subjects for reporting and comment. We tested the hypothesis, using just final inquest reports, because they are the strongest stimuli regularly published, easy to identify reliably and their publication is more susceptible to modification than other types of news about suicide if a causal link is to be established beyond doubt. We did, however, look at the association between suicide and all types of newspaper reporting on suicide and found that they too were associated with the deaths of younger men.

Our method has advantages over waiting for a strike. There are more than 60 local newspapers in Great Britain, some with a household coverage of over 80 per cent (ENAB, 1976), and our method of inquiry can be easily replicated. The effect of newspaper publicity on other examples of abnormal behaviour besides suicide could also be investigated by the same approach.

Given that the association we found is not an artefact, how can it be interpreted? There seems no doubt that suicide is contagious: numerous reports attest to it. Suicide rates increase briefly following publicity given to the suicides of famous people (Hewitt and Milner, 1974; Phillips, 1974). There is evidence of time clustering of suicides at Beachy Head, Sussex, a famous cliff 600 feet high (Surtees *et al*, 1976). Prisoners in Finnish gaols kill themselves more often than expected in the 48 hours after a suicide (Niemi, 1975). However, we are not looking at the famous or the spectacular but at the effect of reporting the suicides of local people in a local paper, a long-established and accepted practice in England.

Newspaper reporting of suicide could theoretically influence a population's suicidal behaviour in the short term and in the long term. By giving currency to attitudes and explanations about suicide, newspapers could help sow the seeds of suicide in the distant future. Our inquiry did not investigate this effect. In the short term, reports could hasten a suicide which

would have occurred anyway, the view held by Durkheim. Or a report might provoke a suicide which would not have occurred otherwise. Either of these short-term influences would produce the statistical association we report here for the younger men. But there is no confirming evidence from our study to prove that reports do have this effect. A controlled study of suppressing suicide reporting would be a feasible way of testing more directly the influence of reports on the suicide rate.

Our findings cannot provide the evidence for banning suicide reports on the grounds that reports cause suicide; but they do suggest that this measure is worth further consideration.

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## The Gaslight Phenomenon—An Institutional Variant

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**A case of paranoid psychosis in an elderly female is reported in which recurrent episodes were apparently induced by the staff of the institution where the patient was a resident. The issues raised by this case are discussed.**

Previous reports (Barton and Whitehead, 1969; Smith and Sinanan, 1972) have drawn attention to the phenomenon whereby relatives may effect the removal of an unwanted person to a mental or other hospital in order either to be rid of someone regarded as a nuisance or to make some material gain otherwise impossible to obtain because of that person's presence at home. Although in their original paper Barton and Whitehead cited a case in which an institution had sought to dispose of an elderly lady by inducing others to believe that she was both incontinent and confused, it appeared that the only motivation was that the 'patient' concerned had not established a good relationship with the 'lady' in charge of the home.

We report a case in which the motivation was clearly that of gain for the staff of the institution. This case more nearly approximates to the original plot of Patrick Hamilton's play *Gaslight*, and as such raises issues which we feel require wider recognition than now exists, judging by the sparse literature on the subject.

To avoid identification we have omitted inessential details in the following case history.

#### Case

Miss A., an 80-year-old retired professional lady, was first admitted to a mental hospital in connection with this incident under Section 31 of the Mental Health (Scotland) Act 1960, from her pleasant flat in a residential establishment. The admission notes stated that she had complained that there were people on the premises who had no business there, that they had spoken outside her door saying that they were going to

throw her into the river and that she further believed that these people were 'after my flat'; she had also maintained that in the recent past men and women had been on the telephone saying 'bad' words to her.

Some fifteen years previously this lady had been admitted twice to the same hospital from her own home suffering from a paranoid psychosis. The main content of her delusional system at that time was that she alleged that several men were digging a tunnel under her garden and that voices were saying 'lustful things to me'. These two episodes were both successfully treated with phenothiazines through a hospital stay of some four months on each occasion.

The impression gained on admission on this occasion was that in spite of her advanced years the patient showed no evidence of intellectual deterioration, that she was fully alert and in good humour and that her only abnormality was that of her paranoid beliefs. Within 72 hours she was no longer voicing any such beliefs, despite the fact that she had not taken any medication whatsoever. She had refused medication, believing that this was part of a plot to poison her. Discharge was delayed for some three weeks because one member of staff at the residential establishment from which she had come said she could not 'cope' with Miss A. until she was relieved by another member of staff.

Miss A. went back to her flat, but was re-admitted three weeks later with essentially the same complaints with the addition, that she said that fumes were coming up into her room from the floor and from central heating pipes. On this occasion she was less good humoured

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## Uses and Usefulness of Paraquat

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**1** Paraquat was discovered in 1955 and introduced to the market place in 1962. During the 23 years between introduction and the present day numerous successful practical uses of the herbicide have been developed. In addition the characteristics of the chemical have allowed significant changes to be made in the ways that some crops are grown.

**2** Paraquat is a relatively non-selective foliage-applied contact herbicide. It is inactivated on contact with almost all naturally occurring soils and it was this property, perhaps above all others, that provided the greatest breakthrough in chemical weed control at the time of its discovery.

**3** Inactivation on contact with soil means that no biologically active residues remain in the soil, thus allowing planting or sowing to be carried out almost immediately after spraying. Although the non-systemic (contact) property of paraquat makes it less than ideal for the long-term control of perennial weeds, the same property is of real advantage when parts of crop plants are sprayed accidentally, for usually only the part receiving the spray is affected.

**4** Total annual usage of all herbicides in agriculture and horticulture in England and Wales, UK, over the period of 1980-1983 has been estimated at 26 360 tonnes used on  $12\ 402 \times 10^3$  ha (1 hectare =  $1 \times 10^4$  m<sup>2</sup>). For paraquat (not including its mixtures with diquat and monolinuron) 270 tonnes were sprayed over 392 218 ha/year. It is estimated from sales records that in Europe  $5 \times 10^6$  ha are sprayed annually with paraquat.

**5** The paper reviews the need for the use of herbicides and the properties that are important for particular crop-weed situations, but concentrates on the properties of paraquat that make it an essential agent of weed control in many areas of agriculture, horticulture and forestry.

### Introduction

Weeds have existed as long as man but it was the introduction of rotation, after the enclosure of land, that made weed control an important element of efficient husbandry. By the mid-nineteenth century the cleaning crops of turnips and potatoes provided years in the rotation when weed control was possible by using hand labour. Later, when that became less economic, various mechanical devices, powered at first by animals and then by engines, were invented. The plough, first used in the UK before the Romans came, remained throughout this period a major weapon in weed control through its ability to bury growing weeds to depths from which it was difficult for them to emerge (Roberts, 1982).

Although several inorganic chemicals were in use for weed control early in the twentieth century and in the 1930s some organics were introduced for weed control in cereals, the real story of weed control by the use of chemicals did not begin until after World

War II when the release of 4-chloro-2-methylphenoxyacetic acid (MCPA) and 2,4-dichlorophenoxyacetic acid (2,4-D) began a real revolution (Kirby, 1980). These herbicides were revolutionary because they were selective and gave control of many broad-leaved weeds in growing cereal crops. Quite suddenly crops (cereals) that had been the dirty crops of rotations became, potentially, the cleaning crops. Although that dream was never realized fully, there was sufficient promise for some agronomists to begin to question the need for the plough.

### Discovery of new herbicides

The success of the early phenoxyacetic acid herbicides triggered an enormous effort by the chemical industry to discover and develop chemicals with properties that allowed successful chemical weed control